Tucker
WIRELINE SERVICES

CONFIDENTIAL
Until 09/27/2011

DUAL INDUCTION RESISTIVITY LOG

RECEIVED
SEP 27 2010
Mo Oil & Gas Council

File No. : TUL-55622
Company : RUNNING FOXES PETROLEUM INC
Well : EMMERSON 12-6A-4
Field :
County : VERNON
State : MISSOURI
Country : USA

Location : PERMIT: 22442
2180' FSL & 1200' FWL
Sect : 6 Twp : 36N Rge : 33W

Recorded By : B.BAILEY
Witnessed By : G.BRATTON

Date : MAY 7 2010
Run No. : 1

Permanent Datum : GL
Drilling Measured From : GL
Log Measured From: GL
Above Permanent Datum : 0.00 FT
Depth--Driller : 435.0 FT
Depth--Logger : 434.0 FT
Bottom Log Interval : 433.0 FT
Top Log Interval : 23.0 FT
Casing Depth--Driller: 23.0 FT
Casing Depth--Logger : 23.0 FT
Casing Diameter : 7.000 IN
Bit Size : 6.125 IN
Unit No. : 122
Location : TULSA

Elevations :
KB : FT
DF : FT
GL : 873.00 FT

Additional Services
CNT
LDT

The customer is hereby warned that by providing the log data herein, T. W. S. does not agree to provide any interpretation of log data, conversion of log data to physical rock parameters or recommendations. T. W. S. does not guarantee or warrant either expressly or impliedly, the accuracy of any interpretation of log data, conversion of log data to physical rock parameters or recommendations which may be given by T. W. S. personnel. Any interpretation, conversion or recommendation is not part of the consideration for the agreement between the parties and is not part of any part of the charge by T. W. S. for its services. Any user of the log data is warned that said user is not entitled to rely on intepretations, conversions or recommendations as aforesaid.

Run Number 1

Depth To Fluid 0.0 FT
Fluid Type In Hole : FRESH
Density : 0.000 SG
Viscosity : 0.000 SEC
pH : 0.000
Fluid Loss : 0.000
Salinity : 0.000 KPPM

RM Source : FLOW LINE
RM : 10.000 OHMM at 82 F
RM at BHT : 9.549 OHMM at 78 F

RMF Source : PRESS
RMF : 8.500 OHMM at 82 F
RMF at BHT : 8.117 OHMM at 78 F

RMC Source : PRESS
RMC : 11.500 OHMM at 82 F
RMC at BHT : 10.981 OHMM at 78 F

Max Recorded Temp. : 78 F
Time Circulation Stopped :
Operating Rig Time, Hrs. : 2.0

- Source Serial Numbers -

Gamma	CSV-587
Neutron	N-1044

- Sonde Serial Numbers -

GRTB	GRT-BA-14
CNT	CNP-AA-116
LDTNG	LDP-NG-02
PIT	PIT-AB-14

Casing Strings

Size (IN)	Weight (LB/FT)	Bottom (FT)
7.000	32.00	23.00

- Comments -

ALL PRESENTATIONS AS PER CUSTOMER REQUEST.

GRT, CNT, LDT, PIT RAN IN COMBINATION
CALIPERS ORIENTED ON THE X-Y AXIS.
PHIN IS CALIPER CORRECTED.
2.71 G/CC USED TO CALCULATE POROSITY.
ANNULAR HOLE VOLUME CALCULATED USING 4.500" PRODUCTION CASING.

GRT: GRP.
CNT: PHIN, CLCNIN, PHINLS.
LDT: PORL, LCORN, PECLN, CLLDIN, LDENN, PORLLS, PECSN.
PIT: ILD, ILM, CIRD, SFLAEC, SPU.

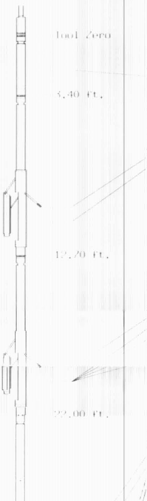
OPERATORS:

R.AUSTIN
M.BURKE

THANK YOU FOR USING TUCKER WIRELINE SERVICES!

Tool String Schematic

Total Tool Length 43.29 ft.
Maximum Outside diameter 4.80 in.
Net Weight in Air 243.00 lbs.



Tool: GRTB **Length:** 3.40 **ft. O.D.:** 3.60 **in.**
Sonde ID : GRT BA 14

Measure Point	Stack Offset	Tool Offset	Bottom Offset
GRP	2.00	2.00	41.29

Tool: CNT **Length:** 9.30 **ft. O.D.:** 4.36 **in.**
Sonde ID : CNP AA 116
Source ID : N-1044
Pad ID : CNP AA 116

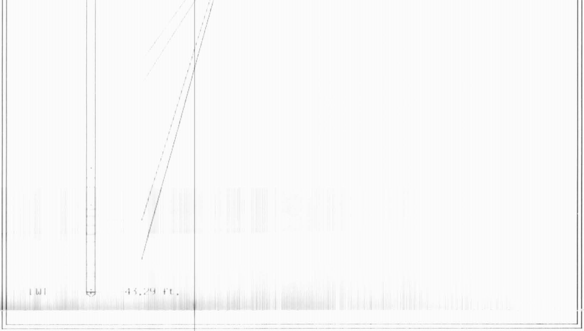
Measure Point	Stack Offset	Tool Offset	Bottom Offset
CLCN	9.40	6.00	33.89
PHIN	10.24	6.84	33.05

Tool: LDTNG **Length:** 9.30 **ft. O.D.:** 4.80 **in.**
Sonde ID : LDP NG-02
Source ID : CSV 587
Pad ID : LDP NG-02

Measure Point	Stack Offset	Tool Offset	Bottom Offset
CLLD	18.70	6.00	24.59
PEL	19.70	7.00	23.59
PES	20.10	7.40	23.19
LDEN	19.70	7.00	23.59
LCOR	19.70	7.00	23.59

Tool: PIT **Length:** 21.29 **ft. O.D.:** 3.62 **in.**
Sonde ID : PIT 6B 14

Measure Point	Stack Offset	Tool Offset	Bottom Offset
ILD	30.92	8.92	12.37
ILM	32.10	10.10	11.20
SFLU	39.49	17.49	3.81
SP	42.60	20.60	0.69



TENSION
LBS
10000 0

SPONTANEOUS POTENTIAL
mV
→| |← 20

GAMMA RAY
API UNITS
200 400
0 200

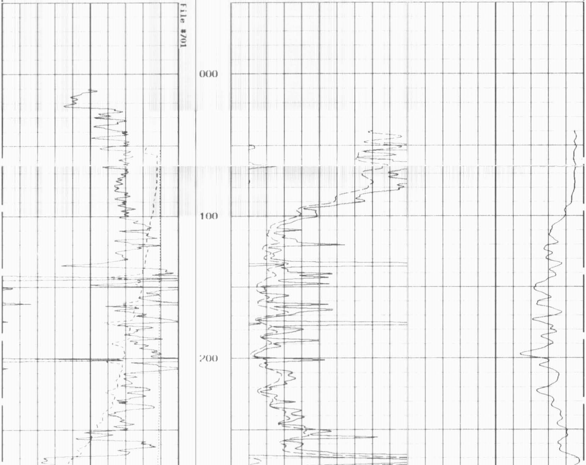
SHALLOW FOCUSED RESISTIVITY
OHMM
0.0 500.0
0.0 50.0

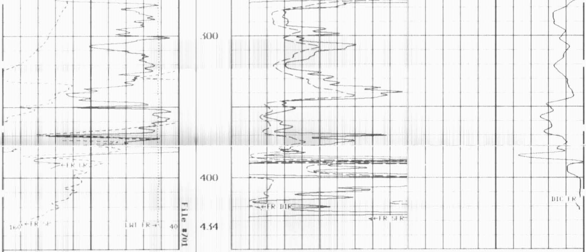
DEEP INDUCTION
OHMM
0.0 500.0
0.0 50.0

DEEP CONDUCTIVITY
MMHO
2000 1000
1000 0

1:600 SECTION

2 INCH





1:600 SECTION

2 INCH

GAMMA RAY
API UNITS
200 400
0 200

SPONTANEOUS POTENTIAL
mV
→| |← 20

TENSION
LBS
10000 0

DEEP CONDUCTIVITY
MMHO
2000 1000
1000 0

DEEP INDUCTION
OHMM
0.0 500.0
0.0 50.0

SHALLOW FOCUSED RESISTIVITY
OHMM
0.0 500.0
0.0 50.0

TENSION
LBS
10000 0

SPONTANEOUS POTENTIAL
mV
→| |← 20

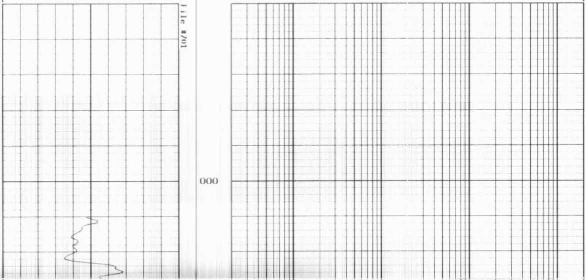
GAMMA RAY
API UNITS
200 400
0 200

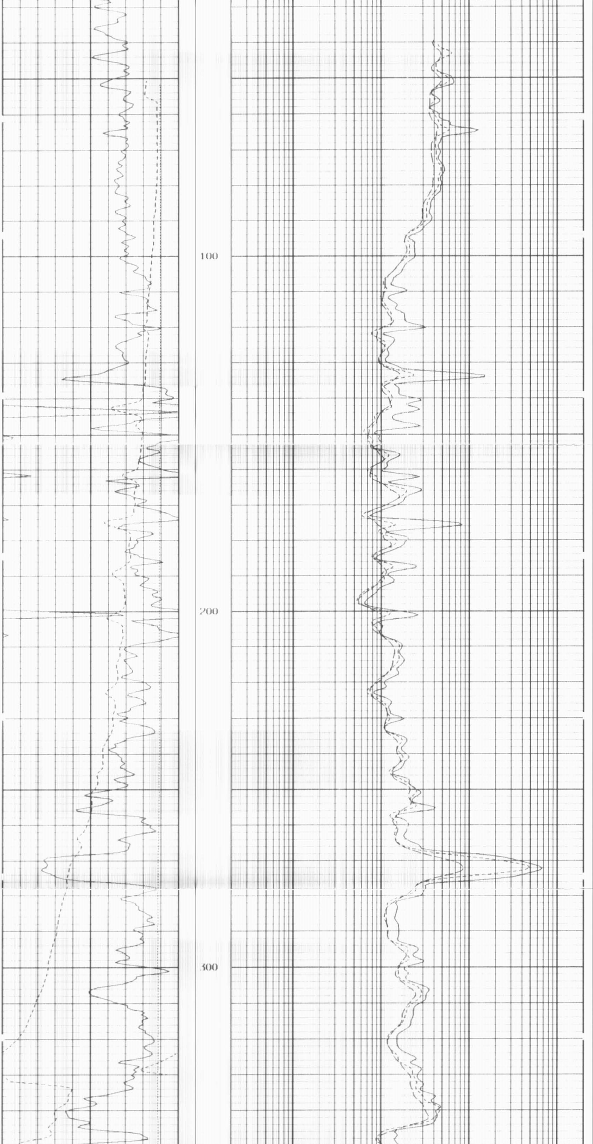
SHALLOW FOCUSED RESISTIVITY
OHMM
0.2 2000.0

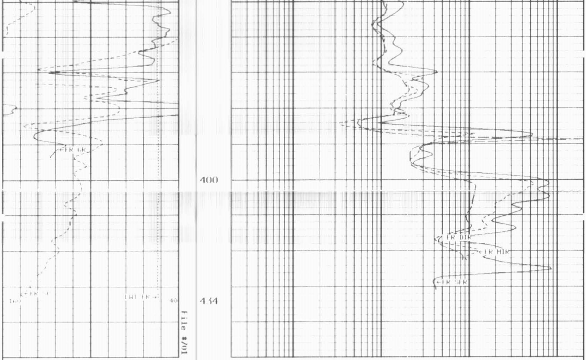
MEDIUM INDUCTION
OHMM
0.2 2000.0

DEEP INDUCTION
OHMM
0.2 2000.0

1:240 MAIN SECTION







1:240 MAIN SECTION

GAMMA RAY API UNITS		DEEP INDUCTION OHMM	
200 0	400 200	0.2	2000.0

SPONTANEOUS POTENTIAL mV	MEDIUM INDUCTION OHMM	
→| |← 20	0.2	2000.0

TENSION LBS		SHALLOW FOCUSED RESISTIVITY OHMM	
10000	0	0.2	2000.0

* Borehole Zone Factors *

Zone 1 99999.0 to 0.0 F

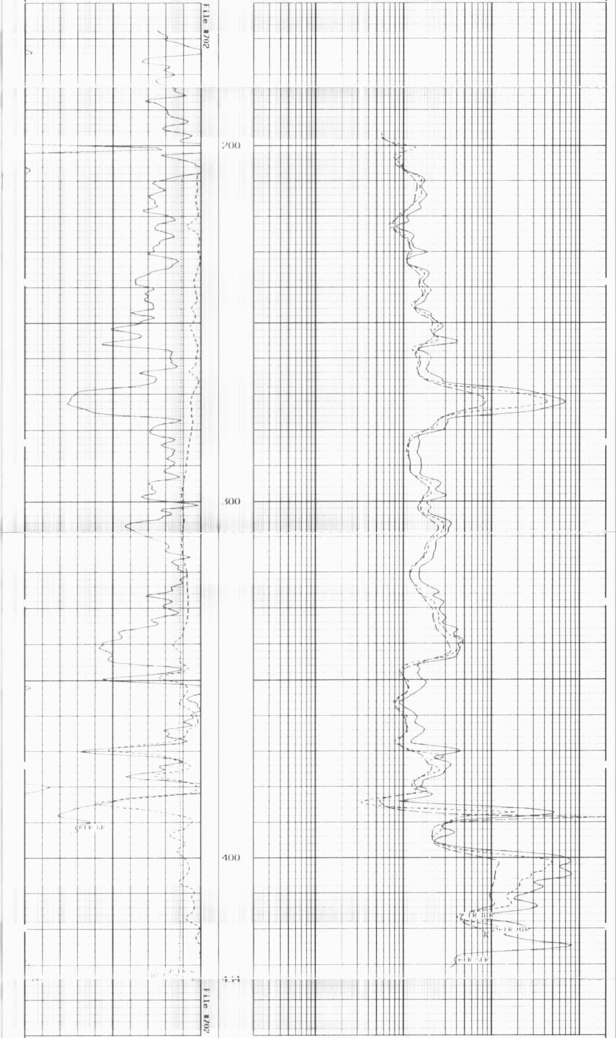
Drill Bit Size	6.125	IN
BHT Depth	435.000	F
Borehole Temperature	78.0	DEGF
Temperature Gradient	1.00	DEFF
Resistivity Of Mud	10.00	OHMM
Resistivity Of Mud Temperature	82.00	DEGF

TENSION LBS		SHALLOW FOCUSED RESISTIVITY OHMM	
10000	0	0.2	2000.0

SPONTANEOUS POTENTIAL mV	MEDIUM INDUCTION OHMM	
→| |← 20	0.2	2000.0

GAMMA RAY API UNITS		DEEP INDUCTION OHMM	
200 0	400 200	0.2	2000.0

1:240 REPEAT SECTION



1:240 REPEAT SECTION

```
        GAMMA RAY                                    DEEP INDUCTION
        API UNITS                                         OHMM
200                    400
  0                    200       0.2                                              2000.0

  SPONTANEOUS POTENTIAL                             MEDIUM INDUCTION
           mV                                             OHMM
      →|   |← 20                 0.2                                              2000.0

         TENSION                            SHALLOW FOCUSED RESISTIVITY
           LBS                                            OHMM
10000                    0       0.2                                              2000.0
```

* Borehole Zone Factors *

```
              Zone 1    99999.0  to     0.0  F

  Drill Bit Size                                 6.125   IN
  BHT Depth                                    435.000   F
  Borehole Temperature                           26.0    DEGF
  Temperature Gradient                           1.00    DEHF
  Resistivity Of Mud                            10.00     OHMM
  Resistivity Of Mud Temperature                82.00     DEGF
```

* Calibration Summary *

```
                          Shop Calibration
                                GRTB
   Performed : 21 Aug 2009                  Time : 15:26
Sensor Suite : GR GRS                         ID : GRT BA 14

                  Measured         Units          Calibrated        Units
        Background          Trg                      Trg
GR               49         347    CPS               175            GRAPI

                          Shop Calibration
                                PTT
   Performed : 09 Mar 2010                  Time : 11:49
Sensor Suite : P IND I                        ID : PTT AB 14

                               Medium
                 Measured                    Calibrated
                 R         X                 R           X        Units
Air            131255    130232              0.1         0.1      MMHOS
Zero           131069    131070              0.0         0.0      MMHOS
Reference      247824    248000           5000.0      5000.0      MMHOS
Loop           151150    173026           2681.5       978.1      MMHOS
Sonde Error                                  1.8         1.4      MMHOS
Cond                                      5000.0      5000.0      MMHOS

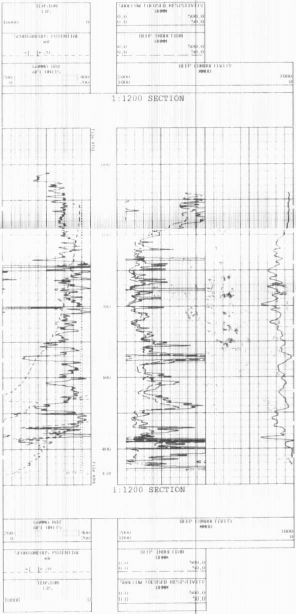
                                Deep
                 Measured                    Calibrated
                 R         X                 R           X        Units
Air            128932    131266              0.0         0.0      MMHOS
Zero           131082    131071              0.0         0.0      MMHOS
Reference      232315    231356           2000.0      2000.0      MMHOS
Loop           149400    174585           1268.3       459.5      MMHOS
Sonde Error                                  4.6         1.1      MMHOS
Cond                                      2000.0      2000.0      MMHOS

                             Temperature
                 Measured                    Calibrated
                 Low       High              Low         High     Units
              16880.0   58920.0              20.0        300.0    DEGF

   Performed : 09 Mar 2010                  Time : 11:45
Sensor Suite : SFL                            ID : PTT AB 14

                               Internal
                    Measured                    Calibrated
                 Zero     Reference          Zero     Reference      Units
Im             32747.6     48726.7            0.0       7078.0       uA
Ib             32767.7     49769.5            0.0       1750.0       mA
MOM1           32750.0     56560.6            0.0        175.0       mV
Equivalent SFL                                            43.97      OHMM

   Performed : 09 Mar 2010                  Time : 11:40
Sensor Suite : P SP                           ID : PTT AB 14

                               Internal
             Measured                           Calibrated
          Zero    Reference                  Zero     Reference      Units
       32784.9     58942.3                    0.0       1000.0       mV
```